

CLAIMS

1. A remote operation wire line core sampling device comprising:

- a water swivel assembly;
- a drill rod coaxially connected to the water swivel assembly;
- a wire line core barrel coaxially connected to a lower end of the drill rod and having at a forward end a bit for annularly digging the ground;
- an inner tube assembly detachably set in the wire line core barrel; and
- an over-shot assembly endowed with a function of grasping an upper end portion of the inner tube assembly,

characterized in that the water swivel assembly has water supply ports at an upper position and a lower position of the water swivel assembly, and accommodates the over-shot assembly at an intermediate position, and a pressurized fluid is supplied from the upper water supply port to make it possible to lower the over-shot assembly to the upper end of the inner tube assembly at a hole bottom through the drill rod.

2. A remote operation wire line core sampling device comprising:

- a drill head portion of a sea-bottom core drill;
- a chuck rotatably mounted to the drill head portion;
- a drill rod grasped by the chuck;
- a wire line core barrel connected to the drill rod and having at a forward end a bit for annularly digging the ground;
- an inner tube assembly detachably provided inside the wire line core barrel; and
- an over-shot assembly endowed with a function of grasping an upper end portion of the inner tube assembly and raising the inner tube assembly through the drill rod,

characterized in that the remote operation wire line core sampling device has a mechanism by

means of which, with the drill rod being retained in a hole, the drill head is lifted upwards to extract the inner tube assembly out of the drill rod.